

AMENDMENTS TO THE CLAIMS

Claims 1-24 (Cancelled)

25. (New) A satellite-based navigation method for determining a position of a receiver, comprising:
ascertaining a signal propagation time between each of a plurality of satellites and the receiver by:

determining a reception time from a precise time reference of the receiver; and

determining a reception time from the satellite signals received from the satellites;

comparing the reception time from the precise time reference with the reception time from the satellite signals to determine if the difference between the reception time from the precise time reference and the reception time from the satellite signals exceeds a tolerance value; and

if the difference does not exceed the tolerance value, using the satellite signals to make a position determination of the receiver.

26. (New) The method of claim 25, wherein the tolerance value is a function of a maximum amount of pseudo-distance errors of the satellites.

27. (New) The method of claim 25, wherein a position interval is determined if the difference between the reception time determined from the satellite signals and the reception time determined from the time reference and/or the difference between a first position solution determined from a first

satellite signal and a second position solution determined from a second satellite signal exceeds a tolerance value.

28. (New) The method of claim 25, wherein satellite signals from a first satellite and a second satellite are evaluated to determine a position of a track-guided receiver by a first angle ϑ_1 between a direction of movement of the receiver and a connection direction from the receiver to the first satellite in an angular range of $0^\circ < \vartheta_1 < 90^\circ$, and by a second angle ϑ_2 between the direction of movement of the receiver and a connection direction from the receiver to the second satellite in an angular range of $90^\circ < \vartheta_2 < 180^\circ$.

29. (New) The method of claim 28, wherein by said determining the reception time from the satellite signals of a first and a second satellite, a position and a time offset error of a pseudo-range measurement is ascertained.

30. (New) The method of claim 25, wherein satellite signals are evaluated from three satellites whose positions are determined by a first angle φ_1 for a first satellite, a second angle φ_2 for a second satellite, and a third angle φ_3 for a third satellite, the angles $\varphi_1, \varphi_2, \varphi_3$ being azimuth angles of connection directions, projected onto a base plane of a system of coordinates, from a surface-bound receiver to the first satellite, the second satellite, and the third satellite, and are related to one another: $0^\circ < \varphi_2 - \varphi_1 < 180^\circ$ and $0^\circ < \varphi_3 - \varphi_2 < 180^\circ$ and $360^\circ > \varphi_3 - \varphi_1 > 180^\circ$.

31. (New) The method of claim 30, wherein the base plane of the system of coordinates lies in a plane which, at the position of the surface-bound receiver, is tangential to the surface on which the receiver moves.

32. (New) The method of claim 30, wherein the reception time, a position, and a time offset error of a pseudo-range measurement is ascertained from satellite signals received from a first satellite, a second satellite, and a third satellite.

33. (New) The method of claim 25, further comprising using a satellite-based integrity system to increase an integrity of the position determination.

34. (New) The method of claim 25, further comprising providing a differential operation for increasing the accuracy and integrity of the position determination.

35. (New) A satellite-based navigation method for determining a position of a receiver, comprising:

- determining a first position solution from a first satellite by:

- determining a reception time from a precise time reference in the receiver; and

- determining a reception time from the satellite signal received from the first satellite;

- determining a second position solution from a second satellite by:

- determining a reception time from a precise time reference in the receiver; and

determining a reception time from the satellite signal received from the second satellite;

comparing the first position solution to the second position solution to determine if the difference between the first position solution and the second position solution exceeds a tolerance value; and

if the difference does not exceed the tolerance value, using the satellite signals from the first satellite and the second satellite to make a position determination of the receiver.

36. (New) The method of claim 35, wherein said determining the first position solution further includes comparing the reception time from the precise time reference with the reception time from the satellite signal received from the first satellite, and said determining the second position solution further includes comparing the reception time from the precise time reference with the reception time from the satellite signal received from the second satellite.